

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image forming apparatus, comprising:

a hardware resource;

a program;

an examining unit configured to examine said hardware resource and determine whether said hardware resource exists, and output, in response to a positive determination, a normal value and output, in response to a negative determination, an abnormal value as the result of the examination;

a configuration unit configured to store identification information of the program and identification information of the examining unit ~~correspondingly on a one-to-one basis~~, the examining unit being executed prior to execution of the program; [[and]]

an activating unit configured to activate the examining unit prior to the execution of the program and, in response to the positive determination activate said program; and

a storage unit configured to store the result of the examination,

wherein said examining unit determines whether the result of the examination that said examining unit is to perform is stored in said storage unit, and uses, if the result of the examination that said examining unit is to perform is stored in said storage unit, the stored result of the examination.

Claim 2 (Cancelled).

Claim 3 (Original): The image forming apparatus as claimed in claim 1, wherein said configuration unit configures a one-to-“n” (n: an integer more than 1) relation between said examining unit and a plurality of said programs.

Claim 4 (Original): The image forming apparatus as claimed in claim 1, wherein said configuration unit configures an “n”-to-one (n: an integer more than 1) relation between a plurality of said examining units and said program.

Claim 5 (Cancelled).

Claim 6 (Original): The image forming apparatus as claimed in claim 1, wherein said activating unit activates said examining unit in compliance with the relation configured in said configuration unit.

Claim 7 (Original): The image forming apparatus as claimed in claim 6, wherein said activating unit, after activating said program, terminates said examining unit.

Claim 8 (Cancelled).

Claim 9 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein

said examining unit determines, if a device driver corresponding to said hardware resource can be successfully opened or is already opened, that said hardware resource exists, and determines that said hardware resource does not exist otherwise.

Claim 10 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein,

in response to receipt of the normal value output by said examining unit in the determination as to whether said hardware resource exists that operates partially or entirely as one of a printer, a copier, a facsimile machine, and a scanner, said activating unit activates said program corresponding to the one of the printer, the copier, the facsimile machine, and the scanner.

Claim 11 (Cancelled).

Claim 12 (Currently Amended): The image forming apparatus as claimed in claim [[11]] 1, wherein

in response to receipt of the normal value output by said examining unit in the determination as to whether a hard disk drive exists, said activating unit configures a RAM disk in compliance with the relation configured in said configuration unit.

Claim 13 (Original): The image forming apparatus as claimed in claim 1, wherein said examining unit determines whether said hardware resource satisfies a predetermined performance requirement, and outputs, in response to a positive determination, a normal value and outputs, in response to a negative determination, an abnormal value as the result of the determination.

Claim 14 (Original): The image forming apparatus as claimed in claim 13, wherein in response to receipt of the normal value output by said examining unit in the determination as to whether a central processing unit satisfies a predetermined performance requirement, said activating unit activates said program having the relation with said examining unit, and

in response to receipt of the abnormal value output by said examining unit, said activating unit does not activate said program having the relation with said examining unit.

Claim 15 (Original): The image forming apparatus as claimed in claim 13, wherein said activating unit, in response to receipt of the normal value from said examining unit as the result of a memory check, activates said program related to said examining unit in said configuration unit, and in response to receipt of the abnormal value from said examining unit as the result of the memory check, does not activate said program.

Claim 16 (Previously Presented): The image forming apparatus as claimed in claim 13, wherein said configuration unit configures the relation between said examining unit and one of a directory in which said program is located and an upper directory thereof; and said activating unit, in response to receipt of the normal value as a result of the determination, installs the directory or the upper directory related to said examining unit, and in response to receipt of the abnormal value as the result of the determination, installs neither the directory nor the upper directory.

Claim 17 (Previously Presented): The image forming apparatus as claimed in claim 1, wherein said examining unit determines whether a predetermined identifier of said hardware resource satisfies a predetermined condition, outputs a normal value in response to a positive determination, and outputs an abnormal value in response to a negative determination.

Claim 18 (Original): The image forming apparatus as claimed in claim 17, wherein

said examining unit determines whether an identifier stored in an SD card matches an identifier of a slot to which the SD card is inserted, outputs a normal value in response to a positive determination, and outputs an abnormal value in response to a negative determination.

Claim 19 (Original): The image forming apparatus as claimed in claim 17, wherein said activating unit executes said program configured in said configuration unit as related to said examining unit in response to receipt of the normal value from said examining unit as the result of the determination, and does not execute said program configured in said configuration unit as related to said examining unit in response to receipt of the abnormal value from said examining unit as the result of the determination.

Claim 20 (Currently Amended): The image forming apparatus as claimed in claim [[5]] 1, wherein

said storage unit is a memory region that said examining unit can directly access.

Claim 21 (Original): The image forming apparatus as claimed in claim 1, wherein said activating unit is activated by an operating system that is activated after the power of the image forming apparatus is turned on.

Claim 22 (Original): The image forming apparatus as claimed in claim 1, wherein said program further comprises:

an application program used for image forming;

a control service program that manages said hardware resource used for the image forming; and

an operating system.

Claim 23 (Currently Amended): A method of activating a program stored on a computer-readable medium for an image forming apparatus including a hardware resource, wherein the program causes the hardware resource to form an image, comprising:

interpreting a configuration unit [[in]] which is configured to create a relation between the program and an examining unit that examines the hardware resource and determines whether said hardware resource exists, and output, in response to a positive determination, a normal value and output, in response to a negative determination, an abnormal value as the result of the examination;

activating the examining unit based on a result of the interpretation; [[and]]

activating the program having the relation with the examining unit based on the result of the examination by the examining unit;

storing the result of the examination in a storage unit; and

determining whether the result of the examination that said examining unit is to perform is stored in said storage unit, and uses, if the result of the examination that said examining unit is to perform is stored in said storage unit, the stored result of the examination.

Claim 24 (Currently Amended): A computer-readable storage medium storing a program that causes a computer having a hardware resource and a program to function as:

an examining unit that examines said hardware resource and determines whether said hardware resource exists, and output, in response to a positive determination, a normal value and output, in response to a negative determination, an abnormal value as the result of the examination;

a configuration unit in which a relation between said examining unit and said program is configured; [[and]]

an activating unit that activates said program having the relation with said examining unit based on the examination; and

a storage unit configured to store the result of the examination,

wherein said examining unit determines whether the result of the examination that said examining unit is to perform is stored in said storage unit, and uses, if the result of the examination that said examining unit is to perform is stored in said storage unit, the stored result of the examination.

Claim 25 (Withdrawn): An image forming apparatus, comprising:

a hardware resource;

a program;

a configuration unit in which a relation between examining processing and said program is configured; and

an activating unit that performs the examining processing and activates said program having the relation with the examining processing based on the result of the examining processing.

Claim 26 (Withdrawn): The image forming apparatus as claimed in claim 25, wherein said configuration unit configures a one-to-one relation between the examining processing and said program.

Claim 27 (Withdrawn): The image forming apparatus as claimed in claim 25, wherein said configuration unit configures a one-to-“n” (n: an integer more than 1) relation between the examining processing and a plurality of said programs.

Claim 28 (Withdrawn): The image forming apparatus as claimed in claim 25, wherein said configuration unit configures an “n”-to-one (n: an integer more than 1) relation between the examining processing and said program.

Claim 29 (Withdrawn): The image forming apparatus as claimed in claim 25, further comprising:

a storage unit in which the result of the examining processing is stored;

wherein

said activating unit determines whether the result of the examining processing that said activating unit is to perform is stored in said storage unit, and uses, if the result of the examining processing that said activating unit is to perform is stored in said storage unit, the stored result of the examining processing.

Claim 30 (Withdrawn): The image forming apparatus as claimed in claim 25, wherein

said activating unit performs the examining processing in accordance with the relation configured in said configuration unit.

Claim 31 (Withdrawn): The image forming apparatus as claimed in claim 30, wherein said activating unit, after activating said program, terminates the examining processing.



Claim 32 (Withdrawn): The image forming apparatus as claimed in claim 25,  
wherein

said activating unit determines whether said hardware resource exists by performing the examining processing, and acquires, in response to a positive determination, a normal value and acquires, in response to a negative determination, an abnormal value as the result of the examining processing.

Claim 33 (Withdrawn): The image forming apparatus as claimed in claim 32,  
wherein

if a device driver corresponding to said hardware resource can be successfully opened or is already opened, said activating unit determines as the result of the examining processing that said hardware resource exists and otherwise determines that said hardware resource does not exist.

Claim 34 (Withdrawn): The image forming apparatus as claimed in claim 32,  
wherein,

in response to acquisition of the normal value in the determination as to whether said hardware resource exists that operates partially or entirely as one of a printer, a copier, a facsimile machine, and a scanner, said activating unit activates said program corresponding to the one of the printer, the copier, the facsimile machine, and the scanner.

Claim 35 (Withdrawn): The image forming apparatus as claimed in claim 25,  
wherein said activating unit determines whether said hardware resource exists by performing the examining processing, and acquires, in response to a negative determination, a normal

value and acquires, in response to a positive determination, an abnormal value as the result of the examination.

Claim 36 (Withdrawn): The image forming apparatus as claimed in claim 35,  
wherein

in response to acquisition of the normal value in the determination as to whether a hard disk drive exists, said activating unit configures a RAM disk in accordance with the relation configured in said configuration unit.

Claim 37 (Withdrawn): The image forming apparatus as claimed in claim 25,  
wherein said activating unit determines whether said hardware resource satisfies a predetermined performance requirement by performing the examining processing, and acquires, in response to a positive determination, a normal value and acquires, in response to a negative determination, an abnormal value as the result of the determination.

Claim 38 (Withdrawn): The image forming apparatus as claimed in claim 37,  
wherein

in response to acquisition of the normal value in the determination whether a central processing unit satisfies a predetermined performance requirement, said activating unit activates said program having the relation with the examining processing, and

in response to acquisition of the abnormal value, said activating unit does not activate said program having the relation with the examining processing.

Claim 39 (Withdrawn): The image forming apparatus as claimed in claim 37,  
wherein

said activating unit, in response to acquisition of the normal value as the result of a memory check, activates said program related to the examining processing designated in said configuration unit, and in response to acquisition of the abnormal value as the result of the memory check, does not activate said program.

Claim 40 (Withdrawn): The image forming apparatus as claimed in claim 37,  
wherein

said configuration unit configures the relation between the examining processing and one of a directory in which said program is located and an upper directory thereof; and

said activating unit, in response to acquisition of the normal value as a result of the determination, installs the directory or the upper directory related to the examining processing, and in response to acquisition of the abnormal value as the result of the determination, installs neither the directory nor the upper directory.

Claim 41 (Withdrawn): The image forming apparatus as claimed in claim 26,  
wherein

said activating unit determines whether a predetermined identifier of said hardware resource satisfies a predetermined condition by performing the examining processing, acquires a normal value in response to a positive determination, and acquires an abnormal value in response to a negative determination.

Claim 42 (Withdrawn): The image forming apparatus as claimed in claim 41,  
wherein

said activating unit determines whether an identifier stored in an SD card matches an identifier of a slot to which the SD card is inserted, acquires a normal value in response to a

positive determination, and acquires an abnormal value in response to a negative determination.

Claim 43 (Withdrawn): The image forming apparatus as claimed in claim 41, wherein

said activating unit executes said program configured in said configuration unit as related to the examining processing in response to acquisition of the normal value as the result of the determination, and does not execute said program configured in said configuration unit as related to the examining processing in response to acquisition of the abnormal value as the result of the determination.

Claim 44 (Withdrawn): The image forming apparatus as claimed in claim 29, wherein

said storage unit is a memory region that said activating unit can directly access.

Claim 45 (Withdrawn): The image forming apparatus as claimed in claim 25, wherein

said activating unit is activated by an operating system that is activated after the power of the image forming apparatus is turned on.

Claim 46 (Withdrawn): The image forming apparatus as claimed in claim 25, wherein said program further comprises:

an application program used for image forming;

a control service program that manages said hardware resource used for the image forming; and

an operating system.

Claim 47 (Withdrawn): A method of activating a program for an image forming apparatus including a hardware resource, wherein the program causes the hardware resource to form an image, comprising the steps of:

interpreting a configuration unit in which is configured a relation between the program and examining processing that examines the hardware resource;

performing the examining processing based on a result of the interpretation; and

activating the program having the relation with the examining processing based on a result of the examination by an activating unit.

Claim 48 (Withdrawn): A computer program that causes a computer having a hardware resource and a program to function as:

a configuration unit in which a relation between examining processing and said program is configured; and

an activating unit that performs the examining processing and activates said program having the relation with the examining processing based on the examination.

Claim 49 (Withdrawn): An image forming apparatus, comprising:

a hardware resource;

a slot that accepts a recording medium in which a program to be installed and activated is stored; and

an activating unit that compares first machine information indicating an apparatus model corresponding to said program with second machine information indicating the

apparatus model of the image forming apparatus, and if the first machine information and the second machine information match, activates the program stored in the recording medium.

Claim 50 (Withdrawn): The image forming apparatus as claimed in claim 49,  
wherein

said activating unit reads a configuration file stored in the recording medium in said slot, and acquires the first machine information from the program designated in the configuration file.

Claim 51 (Withdrawn): The image forming apparatus as claimed in claim 49,  
wherein

said activating unit acquires the second machine information by issuing a system call.

Claim 52 (Withdrawn): The image forming apparatus as claimed in claim 49,  
wherein

said activating unit compares the first machine information and the second machine information, activates the program stored in the recording medium if said activating unit determines that the first machine information and the second machine information match, and does not activate the program stored in the recording medium if said activating unit determines that the first machine information and the second machine information do not match.

Claim 53 (Withdrawn): The image forming apparatus as claimed in claim 49,  
wherein

if said activating unit determines that the first machine information and the second machine information match, said activating unit activates the program that causes the image forming apparatus to function as one or more of a printer, a copier, a facsimile machine, and a scanner.

Claim 54 (Withdrawn): The image forming apparatus as claimed in claim 49, wherein

said activating unit is activated by an operating system activated in response to turning on the image forming apparatus.

Claim 55 (Withdrawn): The image forming apparatus as claimed in claim 50, wherein

said activating unit acquires the first machine information from a module information file located in the program.

Claim 56 (Withdrawn): An image forming apparatus, comprising:  
a hardware resource;  
a slot that accepts a recording medium in which a program to be installed and activated is stored; and  
an activating unit that compares first identification information of a slot into which the recording medium is to be inserted and second identification information of a slot into which the recording medium is actually inserted, and activates the program stored in the recording medium if said activating unit determines that the first identification information and the second identification information match.

Claim 57 (Withdrawn): The image forming apparatus as claimed in claim 56,  
wherein

said activating unit reads a configuration file stored in the recording medium in said slot, and acquires the first identification information from the configuration file.

Claim 58 (Withdrawn): The image forming apparatus as claimed in claim 56,  
wherein

said activating unit acquires the second identification information by issuing a system call.

Claim 59 (Withdrawn): The image forming as claimed in claim 56, wherein  
said activating unit compares the first identification information and the second identification information, activates the program stored in the recording medium if said activating unit determines that the first identification information and the second identification information match, and does not activate the program stored in the recording medium if said activating unit determines that the first identification information and the second identification information do not match.

Claim 60 (Withdrawn): The image forming apparatus as claimed in claim 57,  
wherein

if the first identification information is not contained in the configuration file read from the recording medium, said activating unit activates the program to be installed and activated stored in the recording medium.



Claim 61 (Withdrawn): The image forming apparatus as claimed in claim 56,  
wherein

if said activating unit determines that the first identification information and the second identification information match, said activating unit activates the program to be installed and activated that causes the image forming apparatus to function as one or more of a printer, a copier, a facsimile machine, and a scanner.

Claim 62 (Withdrawn): The image forming apparatus as claimed in claim 56,  
wherein

said activating unit is activated by an operating system activated in response to turning on the image forming apparatus.

Claim 63 (Withdrawn): A method of activating a program for an image forming apparatus having a slot into which a recording medium is inserted, comprising the steps of:

comparing first machine information indicating an apparatus model corresponding to a program to be installed and activated stored in the recording medium with second machine information indicating an apparatus model of the image forming apparatus; and

activating, if a determination is made that the first machine information and the second machine information match, the program to be installed and activated.

Claim 64 (Withdrawn): A method of activating a program for an image forming apparatus having a slot into which a recording medium is inserted, comprising the steps of:

comparing first identification information of the slot into which the recording medium is to be inserted with second identification information of the slot into which the recording medium is actually inserted; and

activating, if a determination is made that the first identification information and the second identification information match, the program to be installed and activated.

Claim 65 (Withdrawn): A computer program that causes a computer having a hardware resource and a slot that accepts a recording medium in which a program to be installed and activated is stored, to function as:

an activating unit that compares first machine information indicating an apparatus model corresponding to said program with second machine information indicating the apparatus model of the image forming apparatus, and if the first machine information and the second machine information match, activates the program stored in the recording medium.

Claim 66 (Withdrawn): A computer readable recording medium storing the computer program as claimed in claim 65.

Claim 67 (Withdrawn): A computer program that causes a computer having a hardware resource and a slot that accepts a recording medium in which a program to be installed and activated is stored, to function as:

an activating unit that compares first identification information of a slot into which the recording medium is to be inserted and second identification information of a slot into which the recording medium is actually inserted, and activates the program stored in the recording medium if said activating unit determines that the first identification information and the second identification information match.

Claim 68 (Withdrawn): A computer readable recording medium storing the computer program as claimed in claim 67.

Claim 69 (New): The image forming apparatus as claimed in claim 18, wherein said identifier is a number associated with said slot.